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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/589,799	09/20/2007	Philippe Garrec	MM6022PCT	2387
1109	7590	11/10/2011		
DAVID A. EINHORN BAKER & HOSTETLER, LLP 45 ROCKEFELLER PLAZA NEW YORK, NY 10111			EXAMINER LUONG, VINH	
			ART UNIT 3656	PAPER NUMBER
			NOTIFICATION DATE 11/10/2011	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<b>Office Action Summary</b>	<b>Application No.</b> 10/589,799	<b>Applicant(s)</b> GARREC ET AL.	
	<b>Examiner</b> Vinh Luong	<b>Art Unit</b> 3656	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 September 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on \_\_\_\_\_; the restriction requirement and election have been incorporated into this action.
- 4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 5) ☒ Claim(s) 1-15 is/are pending in the application.
- 5a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 7) ☒ Claim(s) 1-15 is/are rejected.
- 8) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 9) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 10) ☒ The specification is objected to by the Examiner.
- 11) ☒ The drawing(s) filed on 17 August 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 12) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input checked="" type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

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1. The preliminary amendment and the substitute specification filed on September 20, 2007 have been entered.

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," *etc.*

3. The abstract of the disclosure is objected to because of the implied phrase "According to the invention." Correction is required. See MPEP § 608.01(b).

4. The drawings are objected to because of the reasons, *e.g.*, listed below:

(a) 37 CFR 1.84(p)(4) states: "The same part of an invention appearing in more than one view of the drawing *must* always be designated by the same reference character, and the same reference character *must* never be used to designate different parts." However, *e.g.*, the same part such as the slave arm is indicated by different reference characters 1, 3, and/or 5 as seen on page 4 of the substitute specification and claim 1;

(b) Each part of the claimed invention, such as, the stationary portions, the mobile portions, and the groove in claims 4, 7, and 8 should be designated by a reference character. Please see MPEP §§ 608.01(o) and (g); and/or

(c) The drawings are not in compliance with 37 CFR 1.84. Please see Form PTO-948 attached.

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Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

5. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the claimed features such as the stationary portions and the mobile portions in claims 4, 7, and 8 must be shown or the features canceled from the claims. *No new matter should be entered.*

6. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant’s use.

### **Arrangement of the Specification**

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase “Not Applicable” should follow the section heading:

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- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
- (f) BACKGROUND OF THE INVENTION.
  - (1) Field of the Invention.
  - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A “Sequence Listing” is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required “Sequence Listing” is not submitted as an electronic document on compact disc).

7. The disclosure is objected to because of the informalities, *inter alia*, listed below:

- (a) The specification should have appropriate headings listed above;
- (b) The same part such as the slave arm must not be indicated by different reference characters 1, 3, and 5. See 37 CFR 1.84(p)(4); and/or

(c) Each part of the claimed invention, such as, the stationary portions, the mobile portions, and the groove in claims 4, 7, and 8 should be designated by a reference character.

Please see MPEP §§ 608.01(o) and (g).

Appropriate correction is required.

8. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

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9. Claims 4, 7, 8, 11, and 14 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claims contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention.

Claims 4, 7, 8, 11/4, and 14/4 recite: “end-of-travel switches (33) of the drum, comprising stationary portions and mobile portions mounted on a sliding carriage (42), and a helix (39) attached to the drum and engaging into a groove of the carriage.” However, the specification (pp. 6-8) inadequately describes and the drawings (FIGS. 3 and 4) do not show, *inter alia*, the claimed stationary and mobile portions and how these portions are inter-structurally connected to other elements in order to perform the function as claimed.

10. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

11. Claims 1-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims are replete with instances of no clear antecedent basis too numerous to point out specifically. For example, see the terms “them” in claim 1; “it” in claims 2, 4, 7, and 8; and “the *first* segment” in claims 5 and 9-11.

It is unclear:

(a) Whether a confusing variety of terms such as “a manipulation member (12)” and “a member” in claim 1 refers to the same or different things. See MPEP § 608.01(o) and double

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inclusion in MPEP § 2173.05(o). Applicant is respectfully suggested to identify each claimed element with reference to the drawings; and

(b) What/which structures define the claimed elements such as “a member” in claim 1; the stationary portions, the mobile portions, and the groove in claims 4, 7, and 8; “the first segment” in claims 5, 9, and “two of the segments” in claims 6, 12-15, *etc.* See MPEP §§ 608.01(o) and (g) and “Correspondence Between Specification and Claims” in *Supplementary Examination Guidelines for Determining Compliance With 35 U.S.C. 112 and for Treatment of Related Issues in Patent Applications*, 76 FR 7162 (Feb. 9, 2011). Applicant is respectfully suggested to identify each claimed element with reference to the drawings.

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

- a. Determining the scope and contents of the prior art.
- b. Ascertaining the differences between the prior art and the claims at issue.
- c. Resolving the level of ordinary skill in the pertinent art.
- d. Considering objective evidence present in the application indicating obviousness or nonobviousness.

14. Claims 1, 2, 5, 6, 9, 12, and 15, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Gerard (FR 2667532 cited in the specification) in view of Gosselin et al.’644 (US 2004/0250644).

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Claim 1

Gerard teaches a remote manipulation arm, comprising a master arm (*id.* abstract, FIG. 5) handled by an operator, a slave arm 2 comprising a first tubular segment 3 (*id.* p. 3 of Translation hereinafter “Trans.”) engaged through a wall 9 (FIG. 1) and other segments (at 4 in FIG. 1 and FIG. 5) ending on a manipulation member 52 (FIG. 5), said segments forming a jointed train 7, characterized in that the master arm and the slave arm are without any direct mechanical transmission linking them (see Applicant’s Spec. pp. 1 and 2) but are provided with an interface system comprising a control portion 4 and a power portion (FIGS. 2-4), the power portion (FIGS. 2-4) being coupled with the tubular segment 3 and comprising motors 6, 36, 42, *etc.* for controlling mechanical transmissions 7 included in the slave arm 2, and the control portion 4 controlling the motors 6, 36, 42, *etc.* in response to indications of movement accomplished on the master arm. (Trans. claims 1-5)

In summary, Gerard teaches the invention substantially as claimed. However, Gerard’s power portion does not comprise a stationary casing, a drum rotatably mounted in the casing and attached to the tubular segment, a stationary motor and a transmission comprising a crown around the drum and a member for engaging with the crown, and connecting the drum to the stationary motor.

Gosselin’644 teaches the power portion comprising a stationary casing 1, a drum 3 rotatably mounted in the casing 1 and attached to the tubular segment (not shown, *id.* ¶ 12), a stationary motor 8, 12 and a transmission comprising a crown 11 around the drum 3 and a member 2, 22, 13 for engaging with the crown 11, and connecting the drum 3 to the stationary motor 8, 12 in order to transmit the motion of the master arm to the slave arm (*id.* ¶¶ 2-6).

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It would have been obvious to one having ordinary skill in the art at the time the invention was made to substitute Gerard's power portion by an art recognized equivalent power portion such as the one of Gosselin'644 in order to transmit the motion of the master arm to the slave arm as taught or suggested by Gosselin'644. The substitution of Gerard's power portion by the art recognized equivalent power portion such as the one of Gosselin'644 would not have been uniquely challenging to a person of ordinary skill in the art because it is no more than "the simple substitution of one known element for another or the mere application of a known technique to a piece of prior art ready for the improvement." KSR Int'l. Co. v. Teleflex Inc., 127 S. Ct. 1727, 1741 (2007) and it "does no more than yield predictable results." KSR at 1739. See also MPEP § 2144.06.

#### Claim 2

Gosselin'644's power portion inherently comprises or is capable of comprising a winder of electrical cables leading to the control motors 8, 12. As noted, the use of electric for running the motors is notoriously well known (see, *e.g.*, US 3,815,761 of Adam).

#### Claims 5 and 9

Gerard teaches that one of the mechanical transmissions included in the slave arm 2, which drives into rotation one of the segments of the train, which is adjacent to the first segment 3, and the control motor 6 which drives said mechanical transmission, are placed along an axis of rotation of the first segment 3 as seen in FIG. 1.

#### Claims 6, 12 and 15

Gerard teaches that the segments of the train are subject to sliding movements by two of the mechanical transmissions, one of which comprises a cable 30 (FIG. 1) and the other

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comprises a worm screw 41 (FIG. 4), and in that a mechanical blocker 36', 33, 32, 13, 15, etc. (FIG. 1) of the transmission comprising the cable 30 is provided in the power portion of the interface system. (Trans. pp. 3 and 4)

15. Claims 3, 10 and 13 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2<sup>nd</sup> paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

16. As allowable subject matter has been indicated, applicant's reply must either comply with all formal requirements or specifically traverse each requirement not complied with. See 37 CFR 1.111(b) and MPEP § 707.07(a).

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Gosselin et al.'198 (interface), Adam (master and slave arms 51 and 52, and switches 66), and Haaker et al. (power portion 11).

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vinh Luong whose telephone number is (571)272-7109. The examiner can normally be reached on Monday - Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Ridley can be reached on 571-272-6917. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Vinh Luong/  
Primary Examiner, Art Unit 3656